

**SIGN PERPENDICULAR TO TRAVELED LANE ~ SEE SIGN MOUNTING DETAILS, SHEET 4**

**EMERGENCY VEHICLE PREEMPTION DETECTOR (EVPD) (TYP.)**

**BEAM SPLICE (NO SPLICE ALLOWED AT MIDDLE OF BEAM SPAN) TENON (TYP.)**

**\* 6" (IN) DIAMETER HAND HOLE, WITH GASKET AND REINFORCING RING, INSTALLED ON THE STRUCTURE OPPOSITE TENON (TYP.) ~ SEE HAND HOLE DETAIL, SHEET 3 (SEE NOTE 6)**

**\* HAND HOLE IS ONLY REQUIRED IF TENON LOCATION IS GREATER THAN 1' - 6" FROM ANOTHER HAND HOLE LOCATION.**

**ROUND OR MULTI-FACETED SIGNAL BRIDGE STRUCTURE SHOWN ON THIS SIDE**

**MATCHLINE**

**LOCATE EVPD 1' - 6" MAX. FROM SIGNAL HEAD HAND HOLE (TYP.)**

**6" (IN) x 11" (IN) HAND HOLE W/GASKET & REINF. RING ((TOP & BOTTOM) @ MONOTUBE SPLICE**

**FOUNDATION (TYP.)**

**SQUARE MONOTUBE SIGNAL BRIDGE STRUCTURE SHOWN ON THIS SIDE**

**SIGN PERPENDICULAR TO TRAVELED LANE ~ SEE SIGN MOUNTING DETAILS, SHEET 4**

**PLAN VIEW**

**LUMINAIRE NOT SHOWN FOR CLARITY**

LOCATION OF VIBRATION DAMPER 2' - 0" MAX. FROM SPAN  $\bar{C}$  (TYP.) TO AVOID CONFLICT WITH SIGNAL HEAD LOCATION ~ STOCKBRIDGE (TYPE 31 LBS) VIBRATION DAMPER OR EQUAL APPROVED BY THE ENGINEER, MOUNTED ON THE SIDE

REMOVABLE STEEL COVER

BEAM WITH PARABOLIC CAMBER

\* 6" (IN) DIAMETER HAND HOLE, WITH GASKET AND REINFORCING RING, INSTALLED ON THE STRUCTURE OPPOSITE TENON (TYP.) ~ SEE HAND HOLE DETAIL, SHEET 3 (SEE NOTE 6)

SIGN PERPENDICULAR TO TRAVELED LANE ~ SEE SIGN MOUNTING DETAILS, SHEET 4

ROUND OR MULTI-FACETED SIGNAL BRIDGE STRUCTURE SHOWN ON THIS SIDE

SQUARE MONOTUBE SIGNAL BRIDGE STRUCTURE SHOWN ON THIS SIDE

MAX. CAMBER @  $\bar{C}$  SPAN

EMERGENCY VEHICLE PREEMPTION DETECTOR (EVPD) (TYP.)

1 NIPPLES/COUPPLINGS FOR CAMERA POWER AND DATA AS SPECIFIED BY THE CAMERA SUPPLIER

1 CAMERA

CAMERA BRACKET

PULLING GRIP ~ SIZE TO SECURE CONDUCTORS (TYP.)

SIGN PERPENDICULAR TO TRAVELED LANE ~ SEE SIGN MOUNTING DETAILS, SHEET 4

HAND HOLE & J-HOOK INSIDE THE STRUCTURE (TYP.) (SEE NOTE 6 & 7)

PEDESTRIAN SIGNAL HEAD

PEDESTRIAN PUSHBUTTON ~ SEE CONTRACT

STANDARD #2

POST

MINIMUM SIGNAL BRIDGE VERTICAL CLEARANCE = 20' - 0" TO ROADWAY

MINIMUM SIGNAL HEAD CLEARANCE = 16' - 6"

6" (IN) DIAM. HAND HOLE WITH GASKET AND REINFORCING RING (SEE NOTE 6)

WHEN BARRIER HANDRAIL IS NOT PRESENT (TYP.)

TOP OF FOUNDATION/ BARRIER SECTION (TYP.)

GROUT - 2 1/2" (IN) MAX. SEE STANDARD PLAN J-26.10 FOR DETAIL

1 THE PRESENCE OF A BARRIER HANDRAIL SHALL BE VERIFIED PRIOR TO FABRICATION.

2 NEMA 3R STAINLESS STEEL TERMINAL CABINET "a" ~ ONE REQUIRED ON STANDARD FARTEST AWAY FROM THE TRAFFIC SIGNAL CONTROLLER CABINET ~ TWO REQUIRED ON THE STANDARD NEAREST TO THE TRAFFIC SIGNAL CONTROLLER CABINET ~ SEE STD. SPEC. 9-29.25.

6" (IN) x 11" (IN) HAND HOLE WITH GASKET AND REINFORCING RING ~ SEE HAND HOLE DETAIL, SHEET 3 (SEE NOTE 6) (TYP.)

ALUMINUM OR TYPE 304 S.S. TAG ~ INSTALL 6" (IN) ABOVE HAND HOLE ~ TAG SHALL BE STAMPED WITH SIGNAL BRIDGE STANDARD NUMBER, STATE ROUTE AND MILE POST NUMBER, DRAWING NUMBER & FABRICATION DATE ~ SEE IS-15 FOR DETAIL (TYP.)

6" (IN) DIAM. HAND HOLE WITH GASKET AND REINFORCING RING (SEE NOTE 6)

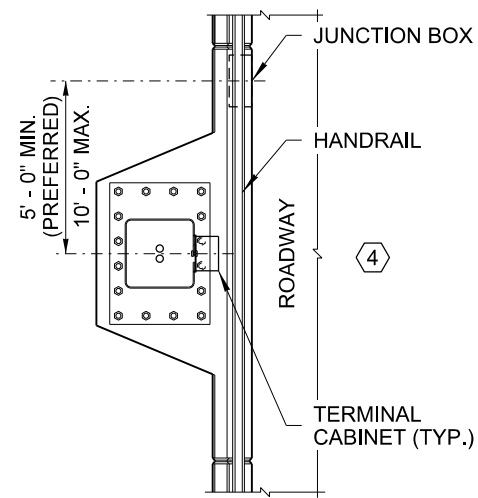
WHEEL HAND PRE SCR STD FOR

MAXIMUM SPAN OF THE SIGNAL BRIDGE IS 200' - 0" MEASURED FROM  $\bar{C}$  OF STANDARD # 1 TO  $\bar{C}$  OF STANDARD # 2

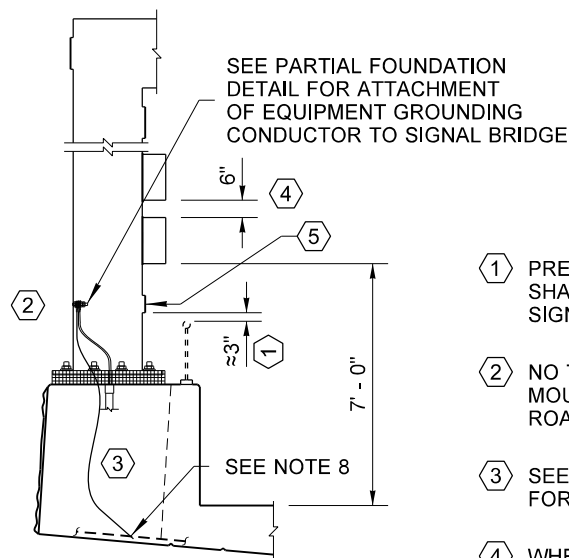
THEODORE JOSEPH BAILEY  
STATE OF WASHINGTON  
39820  
REGISTERED  
PROFESSIONAL ENGINEER

**Washington State Department of Transportation**

DRAWN BY: BILL BERENS

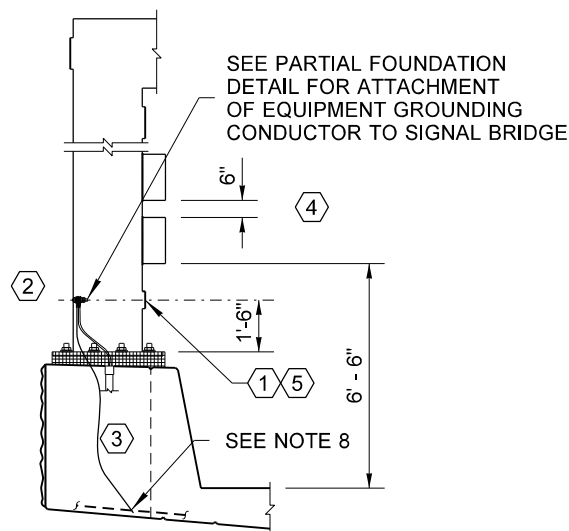


PLAN VIEW



ELEVATION VIEW

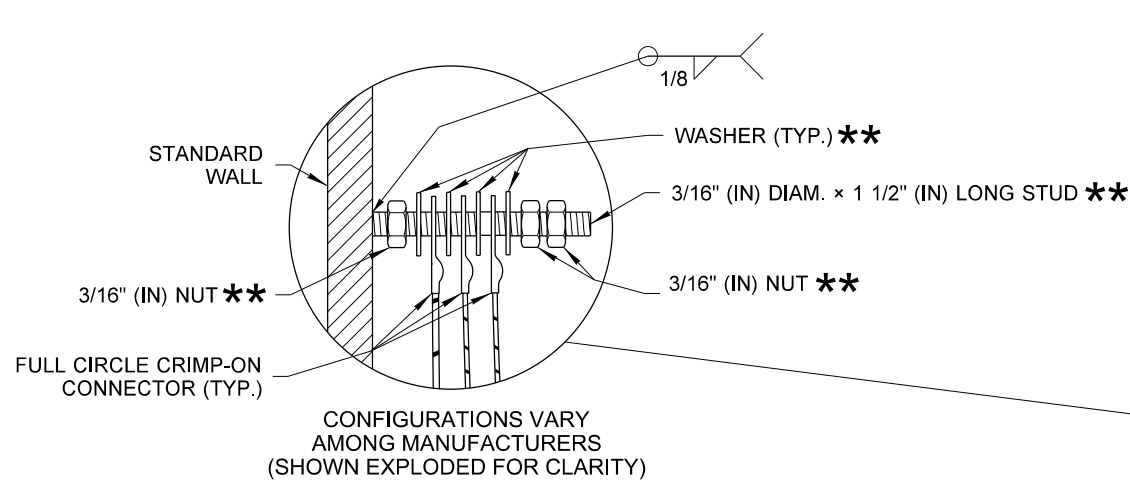
WITH HANDRAIL  
(SQUARE MONOTUBE SHOWN ~  
ROUND OR MULTI-FACETED SIMILAR)



ELEVATION VIEW

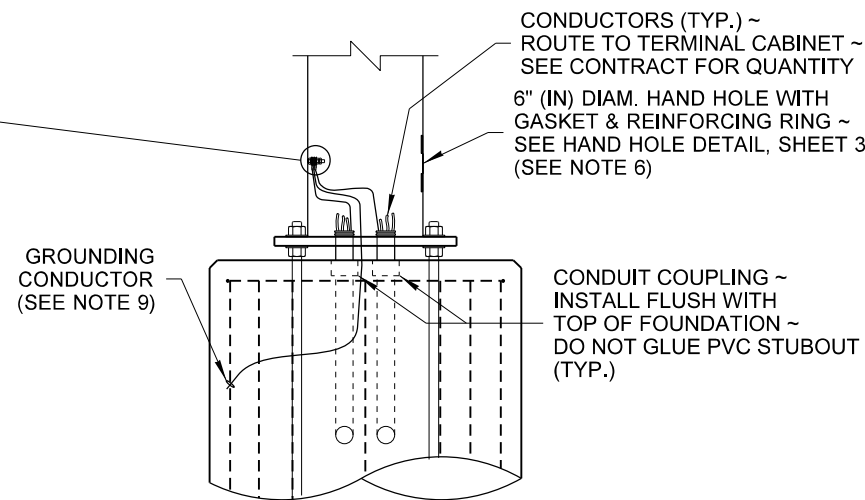
WITHOUT HANDRAIL  
(SQUARE MONOTUBE SHOWN ~  
ROUND OR MULTI-FACETED SIMILAR)

SIGNAL BRIDGE HAND HOLE  
PLACEMENT ON STANDARD

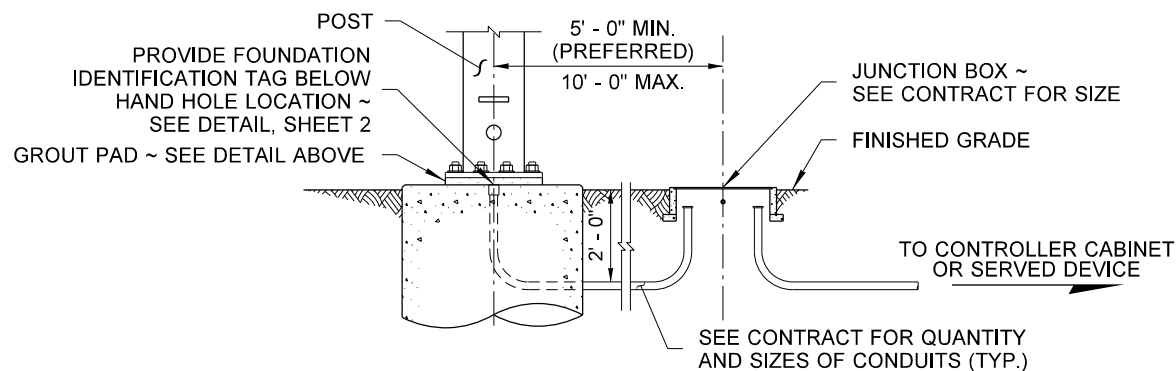


**\*\*** BOLTS, NUTS, AND WASHERS ~  
ASTM F593 OR A193  
TYPE 304 OR TYPE 316  
STAINLESS STEEL (S.S.)

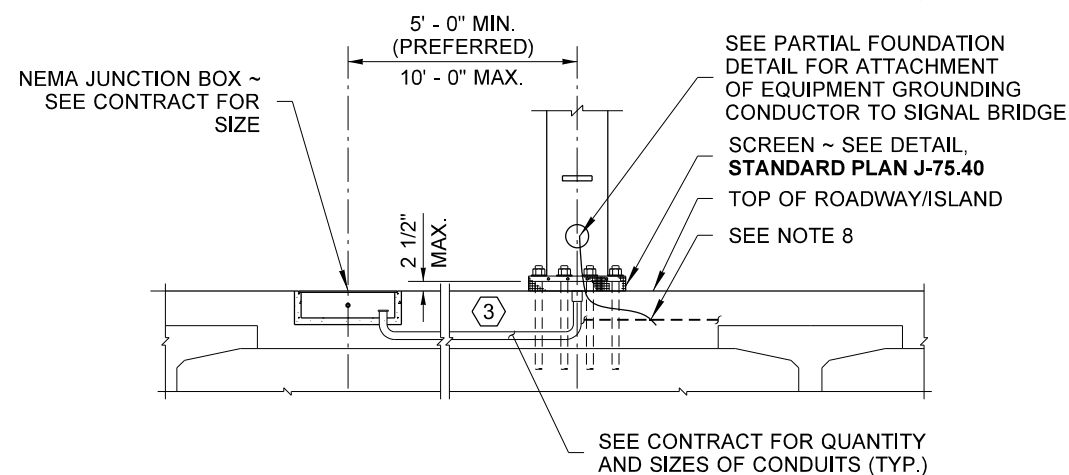
- ① PRESENCE OF A BARRIER HANDRAIL SHALL BE VERIFIED PRIOR TO SIGNAL BRIDGE FABRICATION
- ② NO TERMINAL CABINET SHALL BE MOUNTED ON SIDE OPPOSITE THE ROADWAY
- ③ SEE BRIDGE SHEETS FOR FOUNDATION DESIGN
- ④ WHEN SIGNAL BRIDGE IS MOUNTED ON A STRUCTURE TERMINAL CABINETS SHALL BE MOUNTED ON THE TRAFFIC SIDE OF THE POST AS SHOWN
- ⑤ HAND HOLE ~ SEE NOTE 6



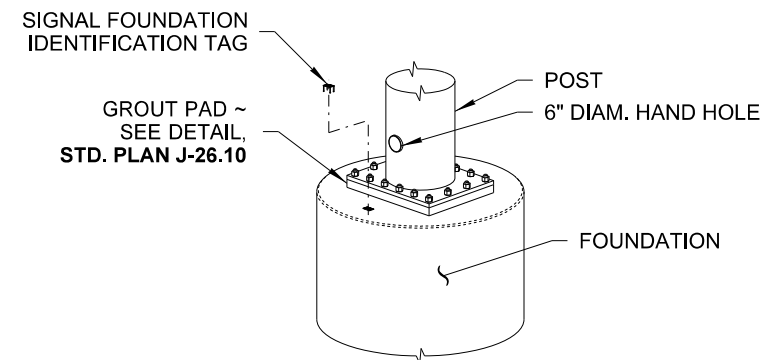
PARTIAL FOUNDATION DETAIL  
(GROUT PAD/SCREEN NOT SHOWN FOR CLARITY)



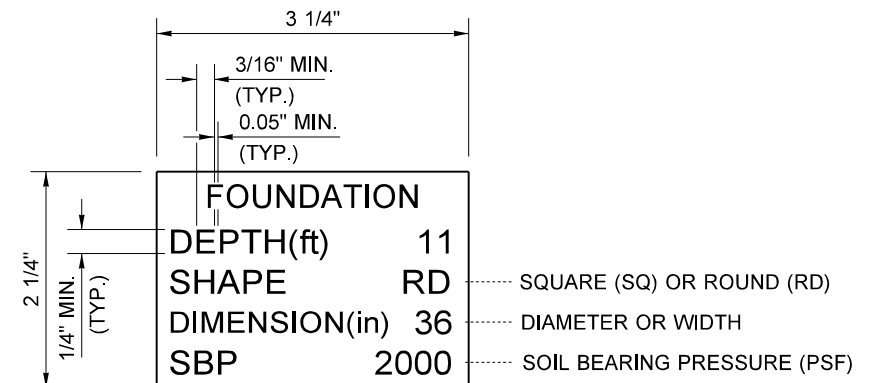
SEE STANDARD PLAN J-26.15 FOR FOUNDATION PLACEMENT DETAILS  
PARTIAL FOUNDATION TO JUNCTION BOX DETAIL



FOUNDATION DETAIL ON BRIDGE - CROSS BEAM  
(NO FOUNDATION ALLOWED ON BRIDGE DECK)

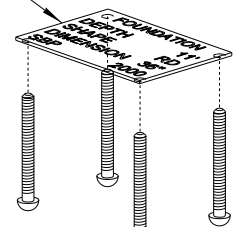


PARTIAL SIGNAL  
FOUNDATION DETAIL  
(ROUND OR MULTI-FACETED SHOWN ~  
SQUARE MONOTUBE SIMILAR)



SAMPLE  
SIGNAL FOUNDATION  
IDENTIFICATION TAG DETAIL  
TEXT SHALL BE ENGRAVED 0.014" (IN) DEEP

10-GAGE TYPE 304 OR 316  
STAINLESS STEEL TAG ~  
RECESS FLUSH WITH TOP OF  
FINISHED FOUNDATION



12 - 28 (NF) x 2" (IN) LONG STAINLESS STEEL  
SCREW ~ DRILL AND TAP FROM BOTTOM ~  
LEAVE SCREW FLUSH WITH TOP ~ APPLY  
LOCTITE TO SCREW THREADS TO BIND  
SCREWS AND I.D. TAG TOGETHER

IDENTIFICATION TAG DETAIL



SIGNAL BRIDGE STANDARD  
ELECTRICAL DETAILS

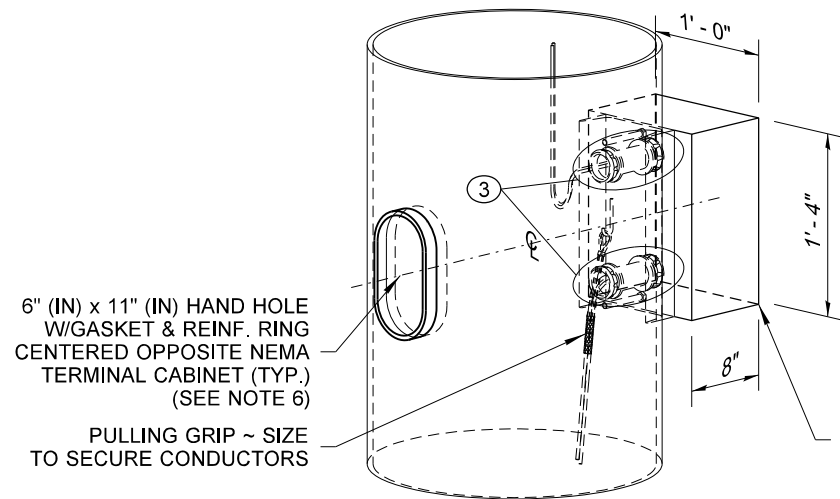
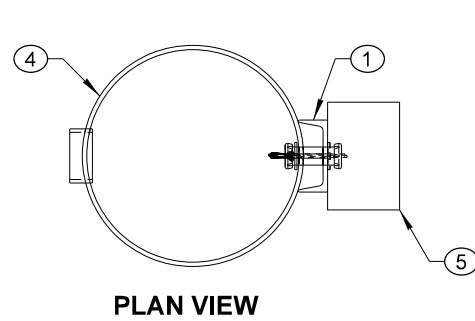
STANDARD PLAN J-75.41-01

SHEET 2 OF 4 SHEETS

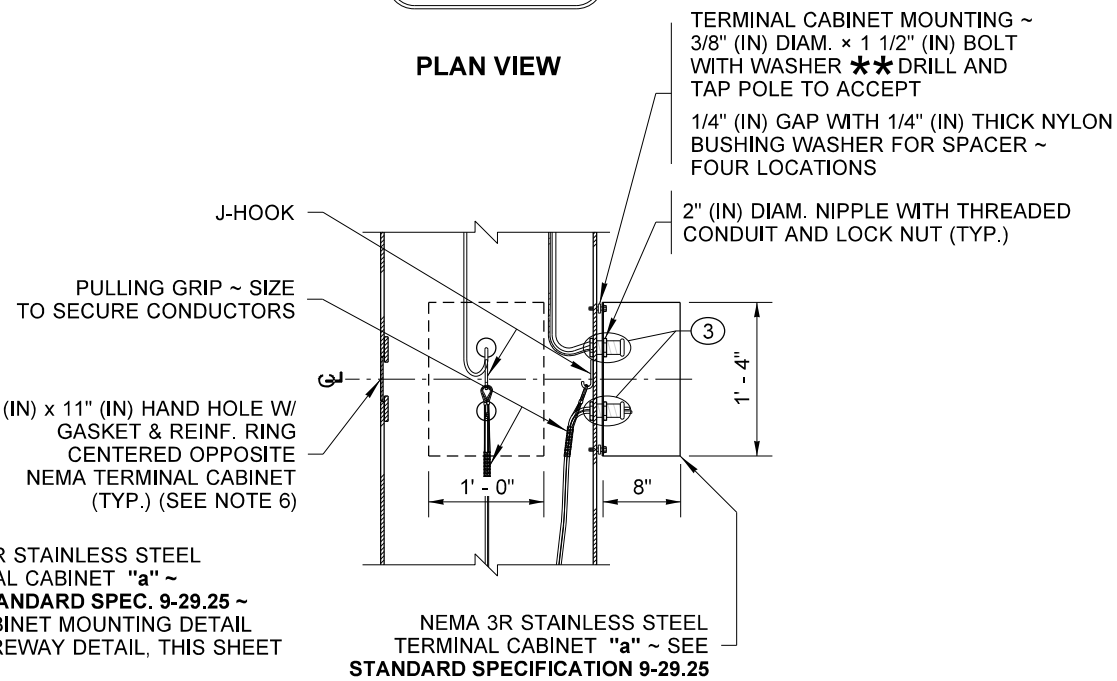
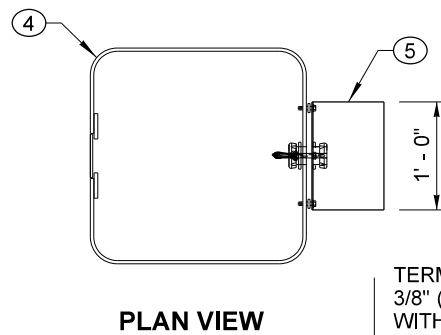
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Washington State Department of Transportation

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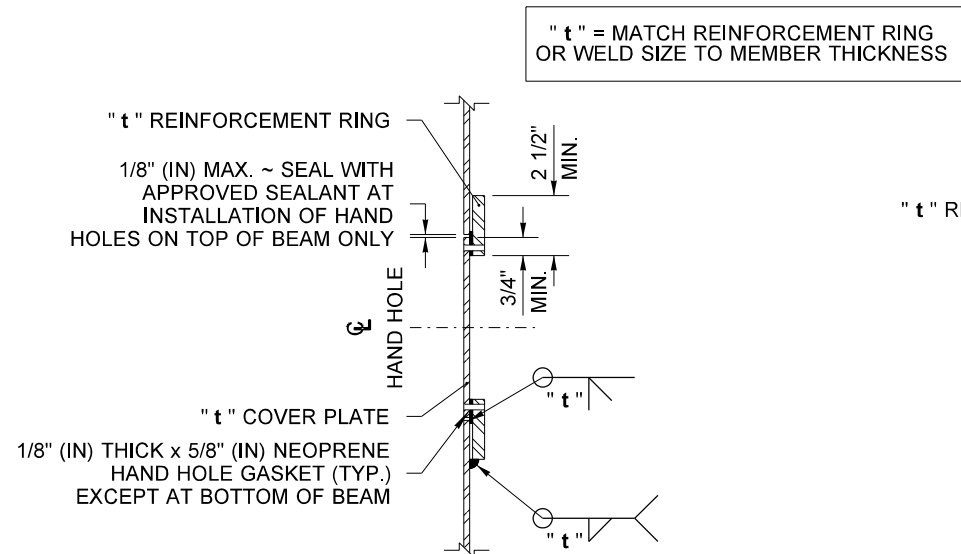


**MULTI-SIDED (ROUND) TERMINAL CABINET MOUNTING DETAIL**

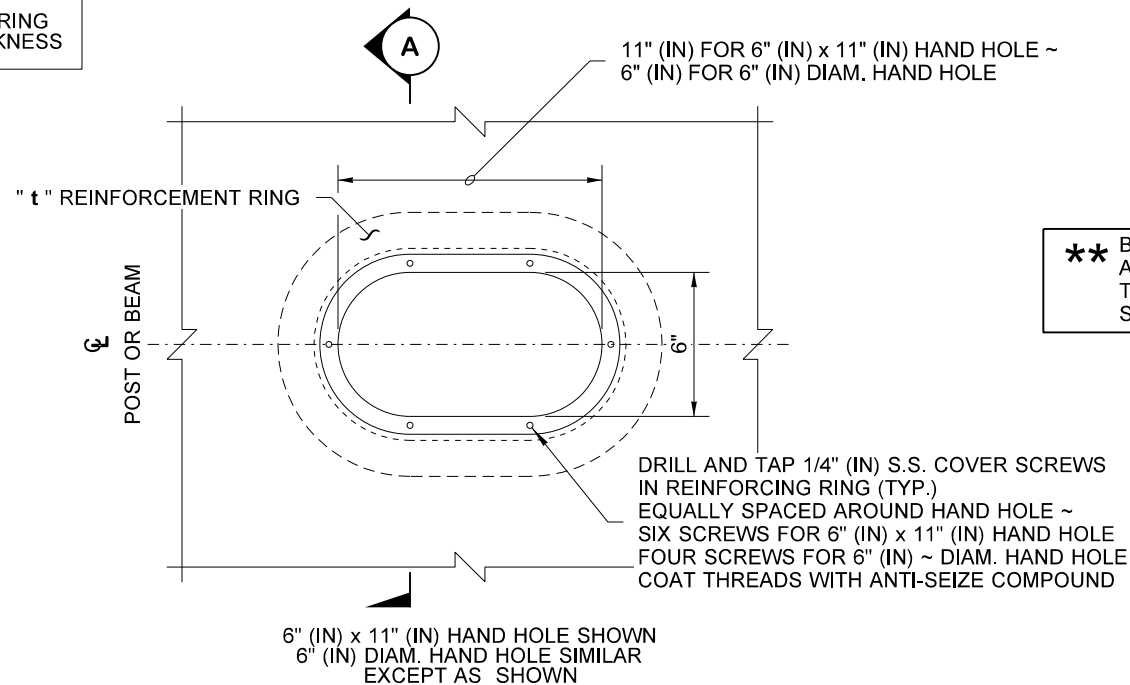


SQUARE TUBE SHOWN.  
FOR MULTI-SIDED (ROUND) MONOTUBE STRUCTURE ~  
ATTACH TERMINAL CABINET AS DETAILED  
PER MULTI-SIDED (ROUND) TERMINAL CABINET MOUNTING DETAIL

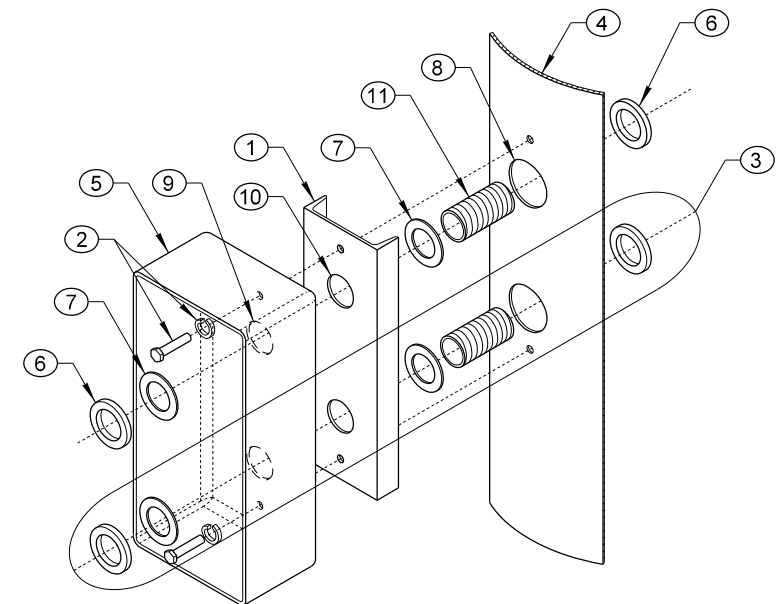
**SECTION @ TERMINAL CABINET  
SQUARE MONOTUBE  
CABINET MOUNTING DETAIL**



**SECTION A**



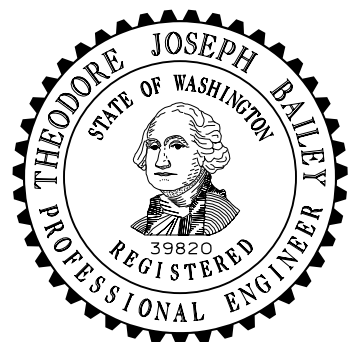
**SQUARE MONOTUBE STRUCTURE  
EXAMPLE HAND HOLE DETAIL**  
(OPENING DIMENSIONS ALSO APPLY TO MULTI-SIDED/ROUND STRUCTURES)



**WIREWAY DETAIL  
ISOMETRIC VIEW**

**KEY NOTES**

- ① 6 x 8.2 LB/FT CHANNEL ~ HOT-DIP GALVANIZED
- ② TWO EACH:
  - 1/2-13 NC x 2 1/2" (IN) HEX HEAD BOLT \*\*
  - LOCK WASHERS (DRILL AND TAP POLE TO ACCEPT) \*\*
- ③ WIREWAY (SEE DETAIL THIS SHEET)
- ④ METAL POST
- ⑤ CABINET
- ⑥ END BUSHING (TYP.)
- ⑦ SEALING LOCKNUT (TYP.)
- ⑧ POLE WALL DRILLED SO BUSHING WILL PASS THROUGH (TYP.)
- ⑨ CABINET WITH BACK WALL DRILLED 1/8" (IN) OVERSIZE OF NIPPLE (TYP.)
- ⑩ CHANNEL DRILLED 1/8" (IN) OVERSIZE OF NIPPLE (TYP.)
- ⑪ 2" (IN) DIAM. x 4" (IN) NIPPLE (UNLESS OTHERWISE NOTED) (TYP.)



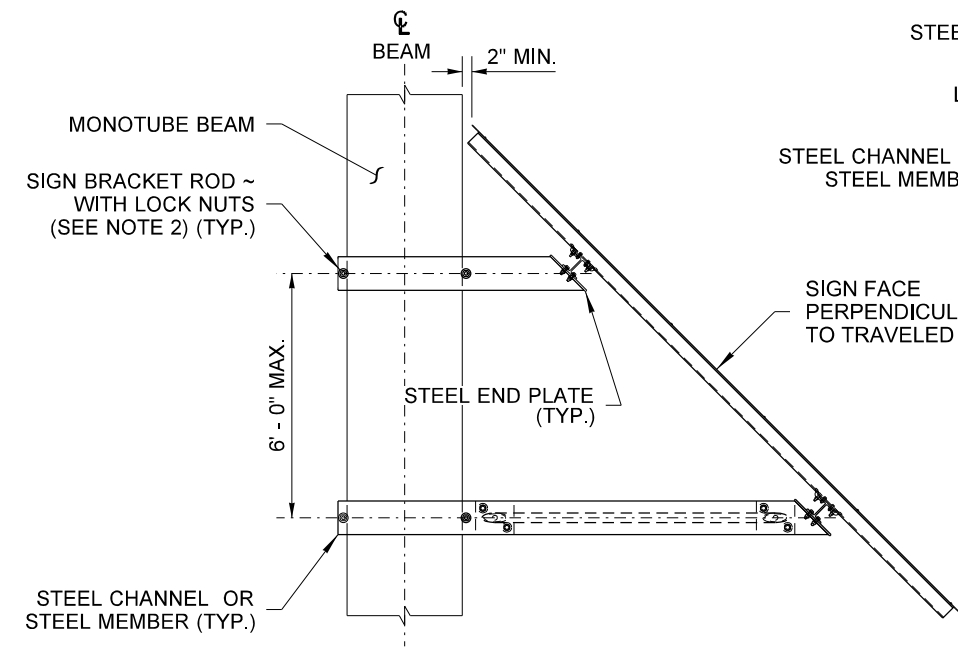
**SIGNAL BRIDGE STANDARD  
ELECTRICAL DETAILS**

**STANDARD PLAN J-75.41-01**

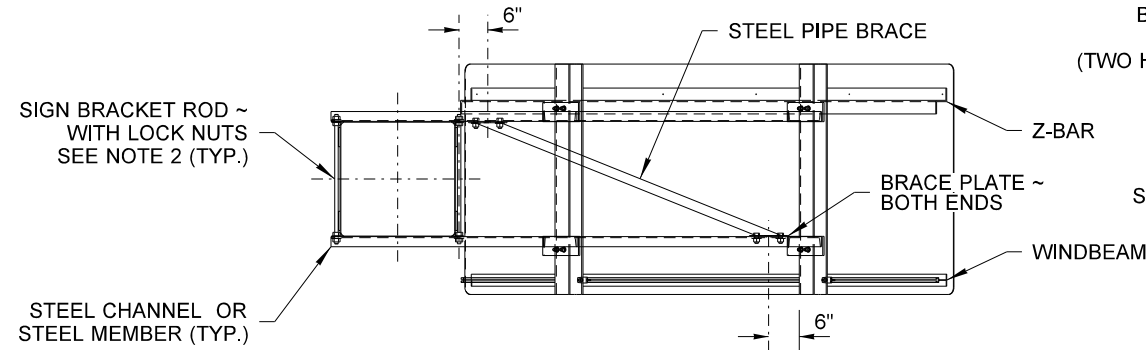
SHEET 3 OF 4 SHEETS

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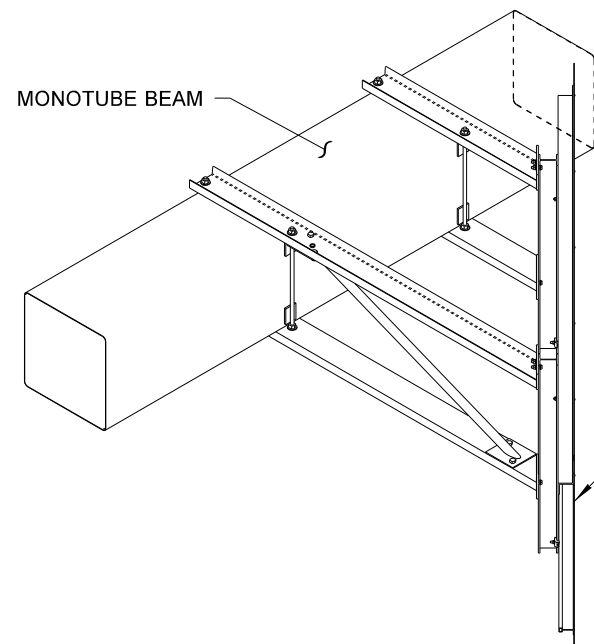
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Washington State Department of Transportation



PLAN VIEW



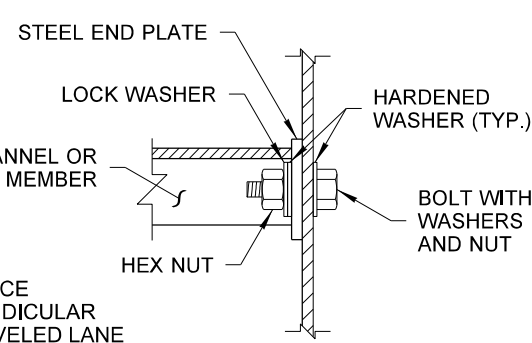
ELEVATION VIEW



ISOMETRIC VIEW

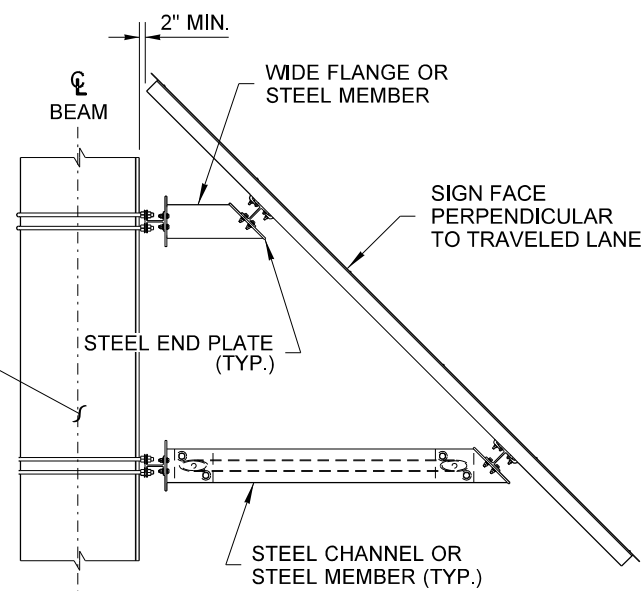
MONOTUBE SIGNAL BRIDGE SIGN MOUNTING DETAILS  
(SKEWED SIGN DETAIL)

FOR DETAILS NOT SHOWN SEE STANDARD PLAN G-90.20

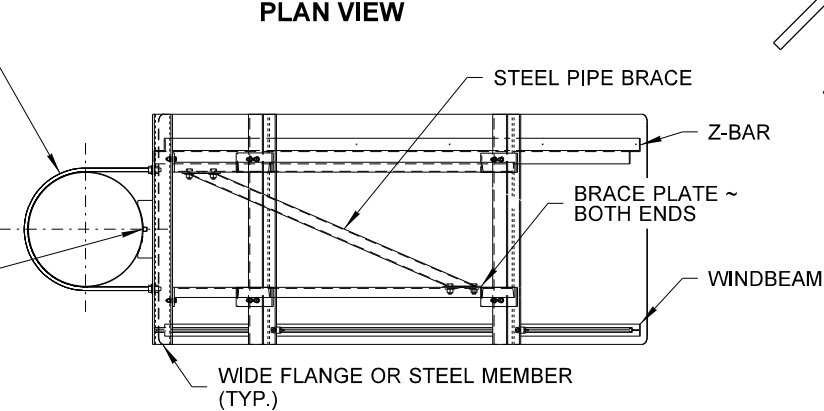


BOLT DETAIL

ROUND OR MULTI-SIDED BEAM



PLAN VIEW



ELEVATION VIEW

ROUND OR MULTI-SIDED BEAM

WIDE FLANGE OR STEEL MEMBER (TYP.)

SIGN FACE PERPENDICULAR TO TRAVELED LANE

STIFFENER PLATE DETAIL

STEEL SQUARE BAR

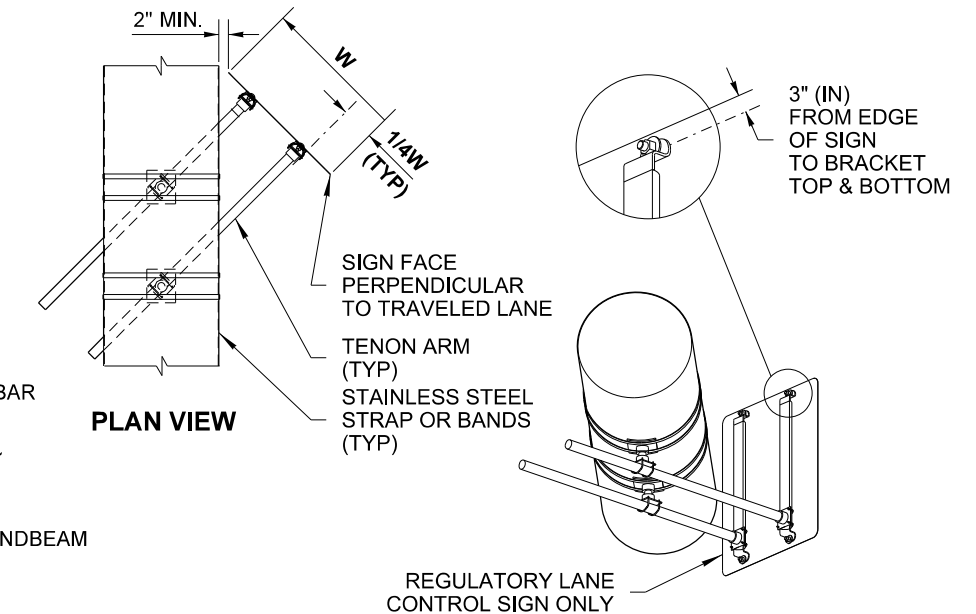
ROUND OR MULTI-SIDED SIGNAL BRIDGE BEAM

ISOMETRIC VIEW

ROUND OR MULTI-SIDED SIGNAL BRIDGE  
SIGN MOUNTING DETAILS FOR LARGE SIGN  
(FOR SIGNS - 4' (FT) x 12' (FT) OR LESS)

## SIGN MOUNTING NOTES

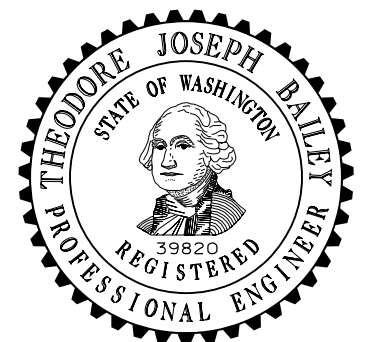
1. All Locknuts shall conform to **Standard Specification Section 9-28.11** as supplemented in the **Special Provisions**.
2. Hot dip galvanize all non-stainless parts.
3. For sign lighting details, See **Standard Plans J-75.40** (for Monotube) and **J-75.45** (for Round or Multi-sided) structures.
4. Each sign shall be supported by a minimum of two support structures.
5. This details conceptual sign support and bracing. Engineer of Record shall design and analyze sign support in accordance with AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signal - Latest edition.



OBLIQUE VIEW

(VIEW IS FROM BELOW LOOKING UP)

ROUND OR MULTI-SIDED SIGNAL BRIDGE  
SIGN MOUNTING DETAILS FOR SMALL SIGN  
(FOR SIGNS - 36" (IN) x 36" (IN) OR LESS)



## SIGNAL BRIDGE STANDARD ELECTRICAL DETAILS

### STANDARD PLAN J-75.41-01

SHEET 4 OF 4 SHEETS

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